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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,706	12/17/2001	Michael G. Harris	772490100015	6249

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EXAMINER
NOLAN, SANDRA M

ART UNIT	PAPER NUMBER
1772	8

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A8-8

Office Action Summary	Application No.	Applicant(s)	
	10/022,706	HARRIS ET AL.	
	Examiner	Art Unit	
	Sandra M. Nolan	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) *24,27 and 29-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,25,26,28 and 41-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12,2,45-7
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims

1. Claims 1-46 are pending.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-23, 25-26, 28, and 41-46, drawn to compositions and methods of making them, classified in class 525, subclass 240.

   II. Claims 24, 27, and 29-40, drawn to pipes/pipe fittings, classified in class 428, subclass 35.7.

3. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a film-forming material and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Dr. Barbara Arndt (216/586-3939) on 09 June 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-23, 25-26, and 41-46.

8. Affirmation of this election must be made by applicant in replying to this Office action.

9. Claims 24, 27, and 29-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

11. The information disclosure statements (IDS's) submitted on 17 December 2001 (Paper No. 1 ½), 12 February 2002 (Paper No. 2), 30 July 2002 (Paper No. 5), 19 February 2003 (Paper No. 6) and 03 March 2003 were considered by the examiner.

12. Duplicate citations have been crossed off of the citation forms, where appropriate.

13. All of the prior art used in this office action was cited in one or more the four IDS submissions listed above.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1, 2, 6-14, 23, 25 and 41-46 are rejected under 35 U.S.C. 102(a) as being anticipated by Berthold et al (DE 199 45 980 A1).

The rejections over Berthold refer to the translation of the German patent that was supplied to the office in Paper No. 7.

Berthold teaches compositions containing 30 to 60% low molecular weight ethylene homopolymer and 30 to 65% high molecular weight copolymer of ethylene with another olefin (page 4, first paragraph). The compositions have densities of more than

0.940 g/cm3 and melt flow indicies of 0.01 to 10 dg/min (page 4, third and fourth paragraphs). The high molecular weight polymer is bimodal (page 5, second paragraph) and the compositions are "hot plastified" (page 7, first paragraph).

The properties of claims 8-13 would be inherent in the Berthold compositions given the similarity of the polymers they contain.

16. Claims 1-5, 7-17, 19-23, 25-26 and 41-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Tajima et al (US 4,835,219).

Tajima teaches polyethylene compositions used for extrusion molding, which compositions contain a polyethylene A and a polyethylene B (abstract).

Polyethylene A is used in amounts of 80 to 97% (col. 12, line 58) and has a density of 0.94 to 0.96. Polyethylene B has a density of 0.94 to 0.96 and comprises 3 to 20% of the composition (col. 8, line 15). The polymers are blended under heated conditions (col. 7, line 38). The blends have a melt indices of 0.001 to 1.0 and density values of 0.94 to 0.96 (col. 2, lines 54-59). They yield values of ESCR (environmental stress cracking resistance; col. 1, lines 14-16) of 70+ (cols. 11-12, Table 2).

The examiner interprets "blending under heated conditions" (col. 7, line 38) to include melt blending.

The properties recited in applicants' claims 8-11 would be inherent, given the substantial identity of the amounts and types of resins used in the Tajima compositions.

17. Claims 1, 4, 7, 12-14, 23, 25 and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Kokai No. 1000444/79 (based upon the partial translation supplied by applicants).

The Kokai teaches polyethylene compositions having density of 0.930 to 0.960 and melt indices of 0.05 to 2.0, that are made by blending 10 to 65% of an ethylenic copolymer having a density of 0.91 to 0.95 with 35 to 95% of an ethylenic polymers having a density of 0.955 or higher.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

20. Claims 3-5, 15-22, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berthold.

Berthold is discussed above. In addition to the features discussed above, it describes, the production of molded bodies (page 2, first paragraph) and fillers (page 6, third line from the bottom).

Carbon black is a known filler for coloring polymeric compositions.

It would have been a matter of engineering choice to employ olefinic polymers with suitable melt flow properties as well as conventional fillers, such as carbon black in the compositions of Berthold, in order to facilitate processing (via the use of easily handled polymers) and/or modify the color of the molded articles (via the use of carbon black filler).

21. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tajima in view of the admission at page 1, lines 1-29 of the specification.

Tajima is discussed above.

It fails to teach the use of bi- or multimodal high density polyethylenes.

The passage at page 1, lines 1-29 of the specification, especially lines 23-29, teaches the conventionality of bi- and multimodal high density polyethylenes to improve tensile properties and stress crack resistance.

The citations are analogous because they both deal with polyethylene moldings.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the bi- and multimodal high density polyethylenes that are conventionally used in the compositions of Tajima in order to improve the tensile properties of moldings made from its compositions.

The motivation to employ the bi- and multimodal high density polyethylenes of the specification in the compositions of Tajima is found at page 1, line 23 of the specification, where improved tensile properties and stress crack resistance are discussed.

It is deemed desirable to make polyethylene moldings having improved tensile properties and stress crack resistance in order to enhance their useful lives.

Citation as of Interest

22. Bohm et al (US 5,338,589) is cited as of interest as teaching blends of high and low density polyethylenes in compositions having total densities of 0.93 to 0.94 and melt flow indices of 0.05 to 1.0 (col. 6, lines 11-14).

Conclusion

Any inquiry concerning this communication should be directed to the Examiner, Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.

S. M. Nolan
Patent Examiner
Technology Center 1700

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